SERVICE MANUAL & PARTS LIST (without price)

DR-210HD (ZX-504)

APR. 2000

DR-210HD

INDEX

CASIO®

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1. SPECIFICATIONS

Ambient temperature range:	0°C ~ 40°C (32°F ~ 104°F)
Power supply:	Rated current and voltage are printed on the calculator.
Dimensions:	85 mm (H) × 217 mm (W) × 329 mm (D) ($3^3/_8$" H × $8^1/_2$" W × 13" D) roll holder not extended
Weight:	1.9 kg (4.1 lbs)
Consumable supplies:	Printer Ribbon (RB-02 or GB-02) Roll Paper

***The AC outlet must be located near the unit and must be easily accessible.**

CAUTION

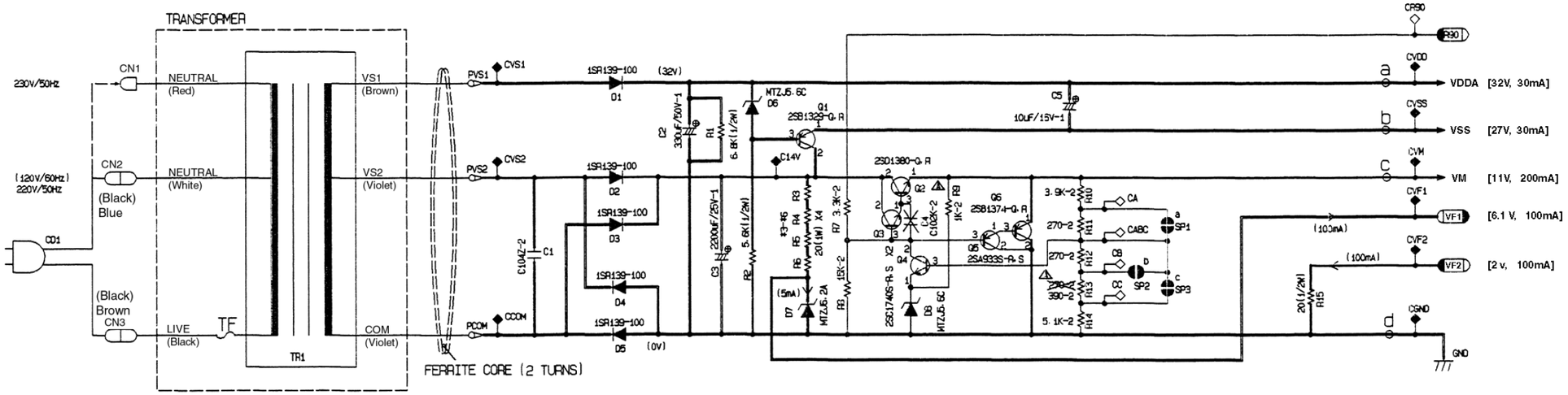
Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufactuter.
Dispose of used batteries according to the manufacturer's instructions.

2. SCHEMATIC DIAGRAM

2-1. Main circuit (1)

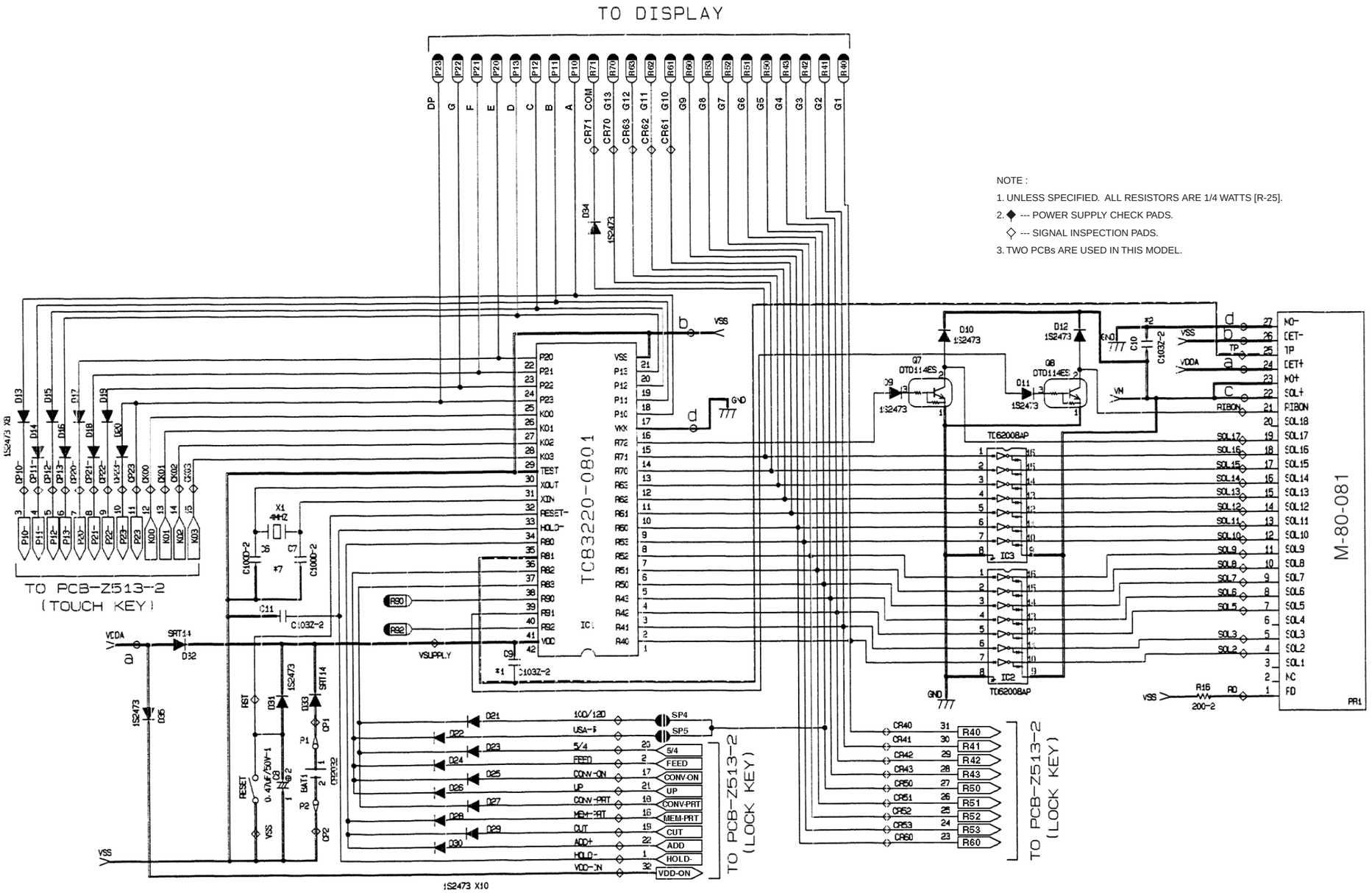
NOTE:
1. Unless specified. Otherwise all resistors are 1/4W or above.



BY CALCULATION VM O/P VOLTAGE

SHORT POINT			OUTPUT VOLTAGE	PRINT SPEED
		c	11.45 V	FAST
	b		11.19 V	
a		c	11.12V	
ALL OPEN			10.36 V	
a	b		10.78 V	
a			10.57 V	SLOW

2-2. Main circuit (2)



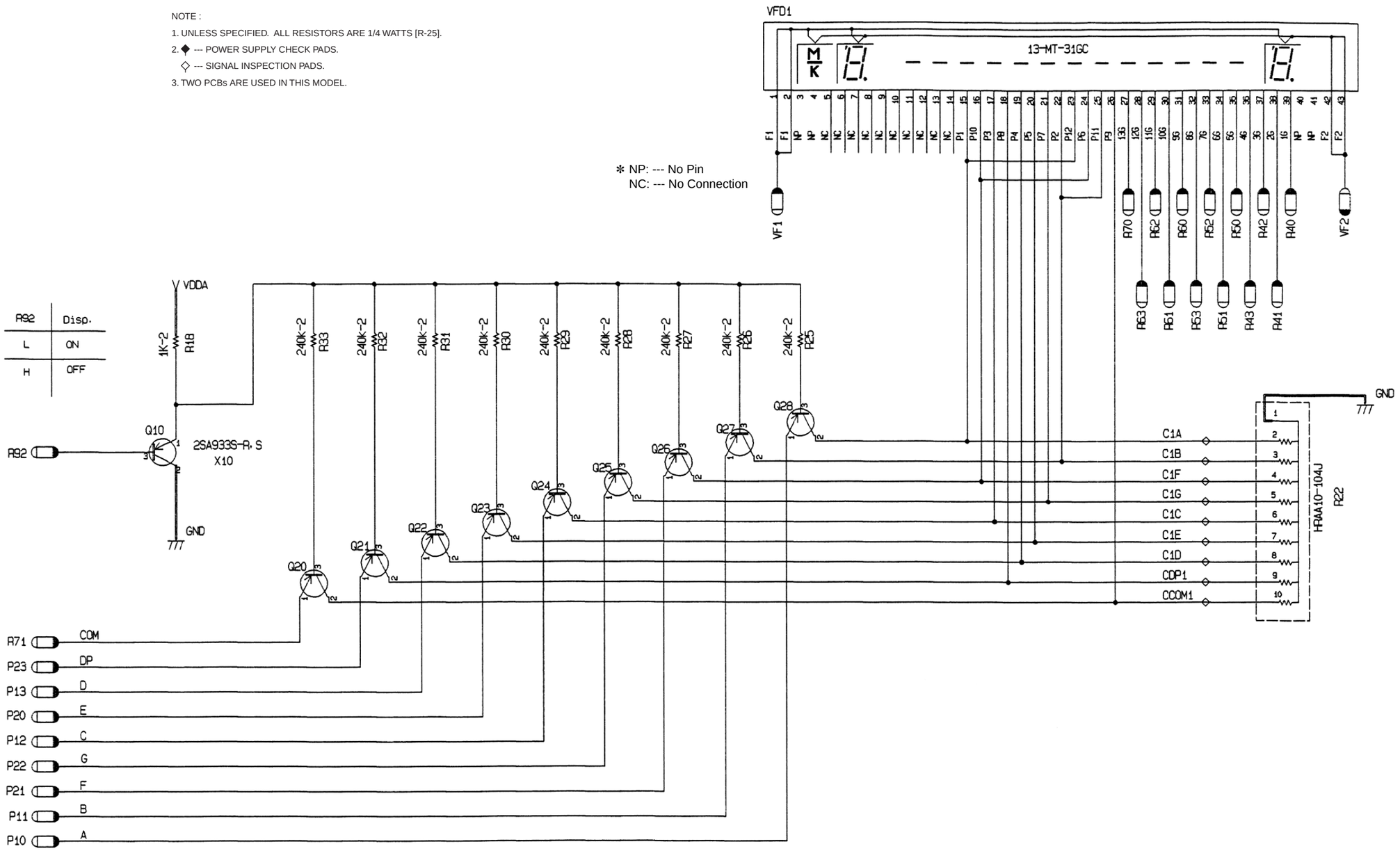
	OPEN	SHORT
SP4	12 DIGIT	10 DIGIT
SP5	USA-$	EURO

2-3. Main circuit (3)

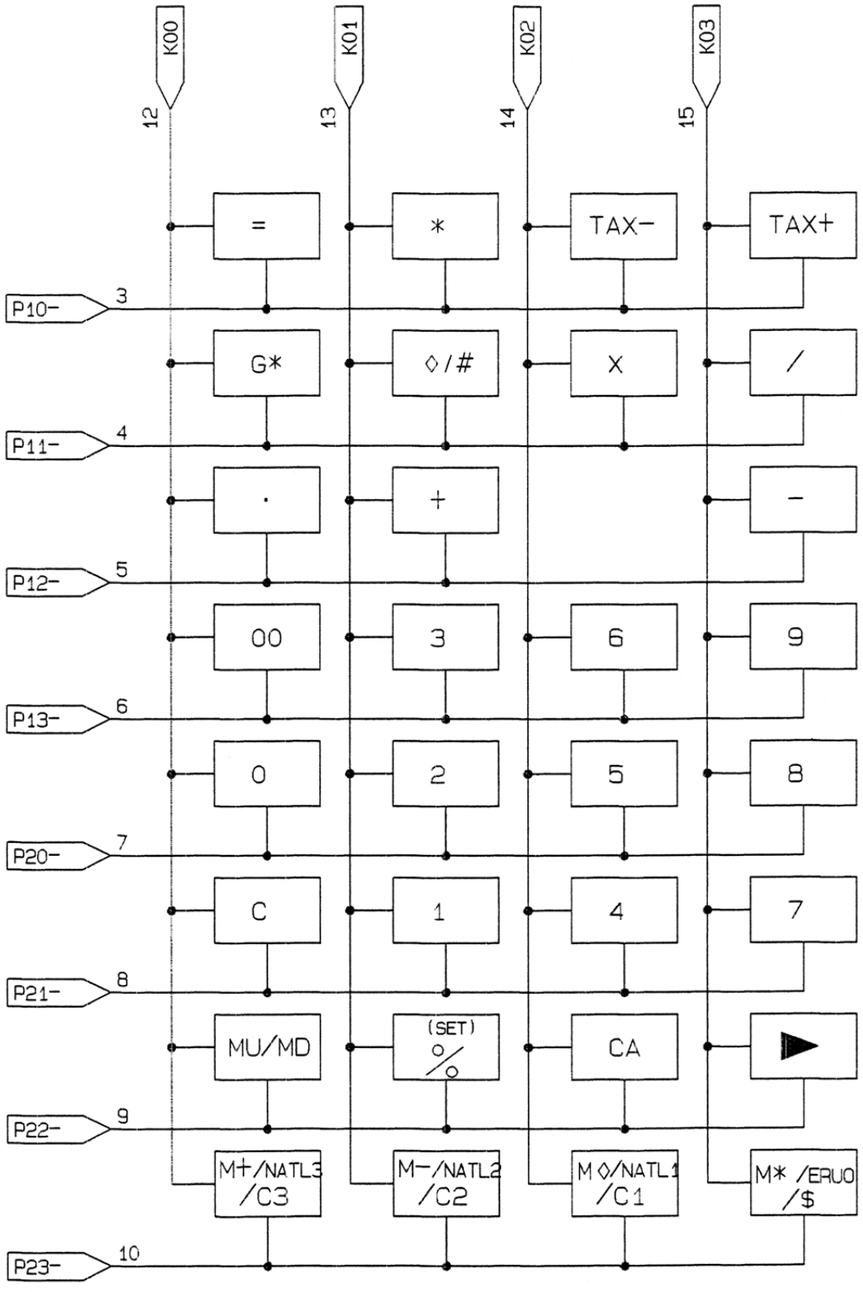
NOTE :

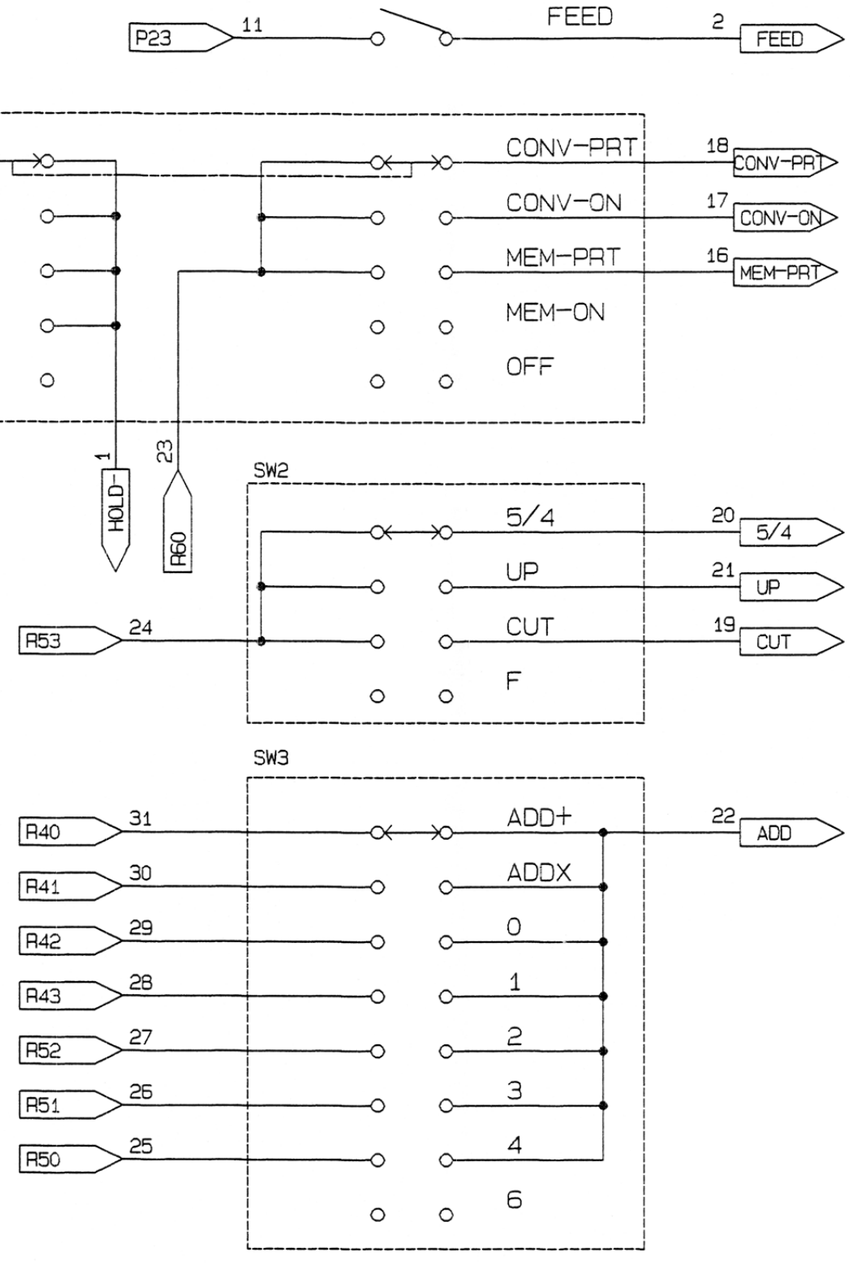
1. UNLESS SPECIFIED. ALL RESISTORS ARE 1/4 WATTS [R-25].
2. ◆ --- POWER SUPPLY CHECK PADS.
   ◇ --- SIGNAL INSPECTION PADS.
3. TWO PCBs ARE USED IN THIS MODEL.

✻ NP: --- No Pin
NC: --- No Connection



2-4. Key and switch circuit





3. PARTS PRICE LIST

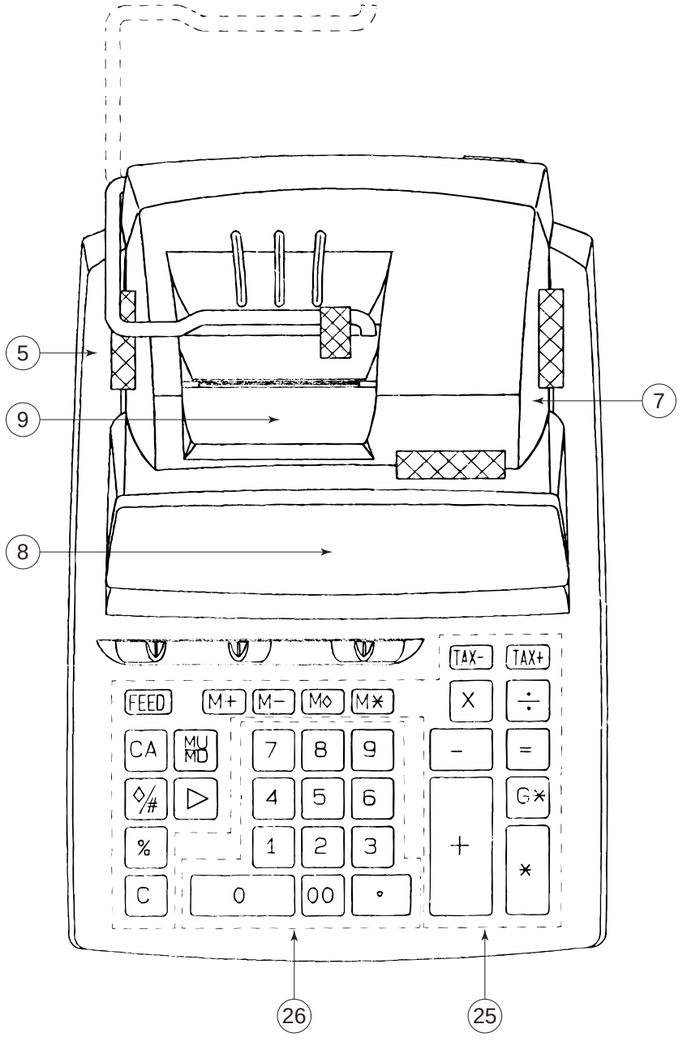
DR-210HD

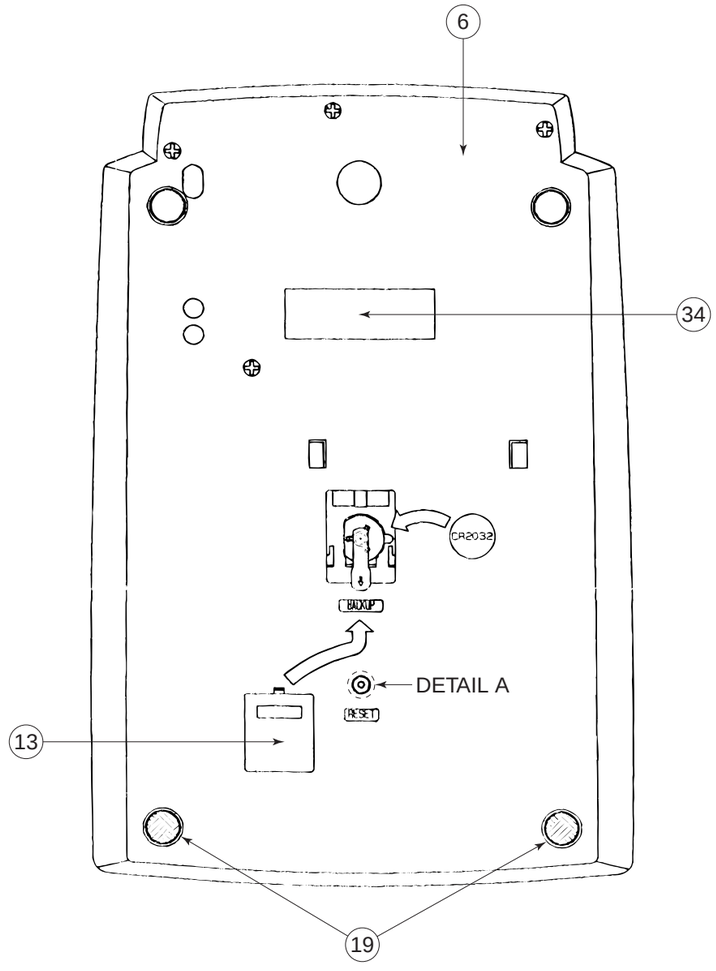
N	Item	Code No.	Parts Name	Specification	Applicable	Q	Parts Code	R
	PCB UNIT (HA110269)							
	IC1	1000 1931	LSI	TC83220-0801	Common	1	AV	C
	IC2,IC3	2120 6687	TRANSISTOR/ARRAY	TD62008AP	Common	2	AK	C
	VFD1	1001 7205	DISPLAY TUBE	13-MT-31GC	Common	1	BJ	B
	Q1	2251 0574	TRANSISTOR	2SB1329-Q,R-T105-T	Common	1	AC	C
	Q2	2253 0469	TRANSISTOR	2SD1380-Q,R	Common	1	AD	C
	Q3,Q4	2252 0896	TRANSISTOR	2SC1740S-R,S-TP-T	Common	2	AA	C
	Q5,Q10, Q20~Q28	2250 0588	TRANSISTOR	2SA933STPR	Common	11	AA	C
	Q6	2251 0595	TRANSISTOR	2SB1374-Q,R-T103-T	Common	1	AC	C
	Q7,Q8	2259 1400	TRANSISTOR/DIGITAL	DTD114ES-TP	Common	2	AB	C
	D1~D5	2390 0378	DIODE	1SR139-100T-32-T	Common	5	AA	X
	D6,D8	2360 1946	DIODE/ZENER	MTZJ5.6CT-77-T	Common	2	AA	C
	D7	2360 2044	DIODE/ZENER	MTZJ6.2AT-77-T	Common	1	AA	C
	D9~D31, D34,D35	2301 0101	DIODE	1S2473-T-77-T	Common	25	AA	X
	D32,D33	2390 3021	DIODE	SRT14	Common	2	AF	X
	R22	1001 8364	RESISTOR/NETWORK	HRAA10-104J	Common	1	AA	C
	X1	2590 2782	OSCILLATOR	CSA4.00MG100-TF01	Common	1	AB	C
	1	1001 8363	CABLE/JOINT	HA310937-2	Common	2	AA	C
	2	6419 4320	CABLE/JOINT	HA310361-2	Common	1	AD	C
N	3	1001 8376	PRINTER UNIT/DIGITAL	M-80-081	Common	1	AZ	B
	COMPONENTS							
	4	1001 8386	PCB ASSY	HA110292*1	Common	1	DD	B
N	5	1001 8370	CASE/UPPER	HA110285-6	Common	1	AW	X
N	6	1001 8371	CASE/LOWER	HA110286-6	Common	1	AW	X
N	7	1001 8372	PRINTER COVER	HA110287-1	Common	1	AI	C
N	8	1001 8373	PLATE/DISPLAY	HA110290-1	Common	1	AE	C
	9	1001 8353	PAPER CUTTER	HA210238-1	Common	1	AB	C
	10	1001 8354	SWITCH/SLIDE	HA210239-1	Common	1	AA	C
	11	1001 8355	SWITCH/SLIDE	HA210240-1	Common	2	AA	C
	12	1001 8356	RUBBER/KEY	HA110291-1	Common	1	AF	C
N	13	1001 8375	BATTERY COVER	HA310947-9	Common	1	AA	C
	14	1001 7195	BATTERY PLATE (-)	HA310949-1	Common	1	AA	X
	15	1001 7196	BATTERY PLATE (+)	HA310950-1	Common	1	AA	X
	16	1001 8358	ROLL ARM	HA310901-1	Common	1	AI	C
	17	1001 8359	PLATE/ROLL ARM	HA311007-1	Common	1	AA	X
	18	1001 7201	PLATE/ROLL ARM	HA310953-1	Common	1	AA	X
	19	6054 0960	RUBBER/FOOT	P410035-4	Common	2	AA	X
	20	6424 5281	PLATE/SWITCH	HA310595-1	Common	2	AA	X
	21	1001 7202	PLATE/SWITCH	HA411226-1	Common	2	AA	X
	22	6052 6620	HANGER	P410126-2	Common	1	AA	X
	23	6052 6630	HANGER	P410117-2	Common	1	AA	X
	24	6052 6640	HANGER	P410127-2	Common	1	AA	X
	25	1001 8388	KEY ASSY/FUNCTION	HA310978*2	Common	1	AU	C
	26	1001 7215	KEY ASSY/NUMBER	HA310979*1	Common	1	AM	C
	27	1001 7203	TRANSFORMER/POWER	SE-512-1D2	Common	1	AU	C
	28	3701 1114	CORD/POWER	286S0255	Common	1	AL	C
	29	6420 2600	SPACER	A442667-1	Common	1	AT	X
	30	6419 9840	RUBBER/RESET	A341594-1	Common	1	AA	X
	31	1001 8360	SWITCH COVER	HA411246-1	Common	1	AA	C
	32	6389 3307	CUSHON/PRINTER	M4K3791	Common	4	AA	X
	33	6419 4680	STOPPER/PRINTER	HA410531-1	Common	1	AA	X
N	34	1001 8374	LABEL	HA411247-1	Common	1	AA	X

Notes: **N**-New parts
Q-Quantity used per unit
R-Rank

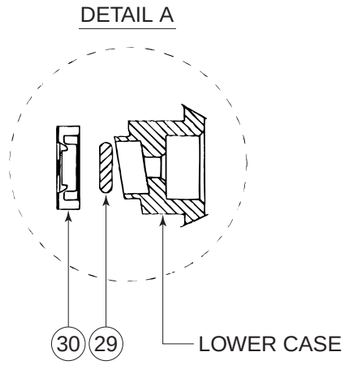
R- A: Essential
B: Stock recommended
C: Others
X: No stock recommended

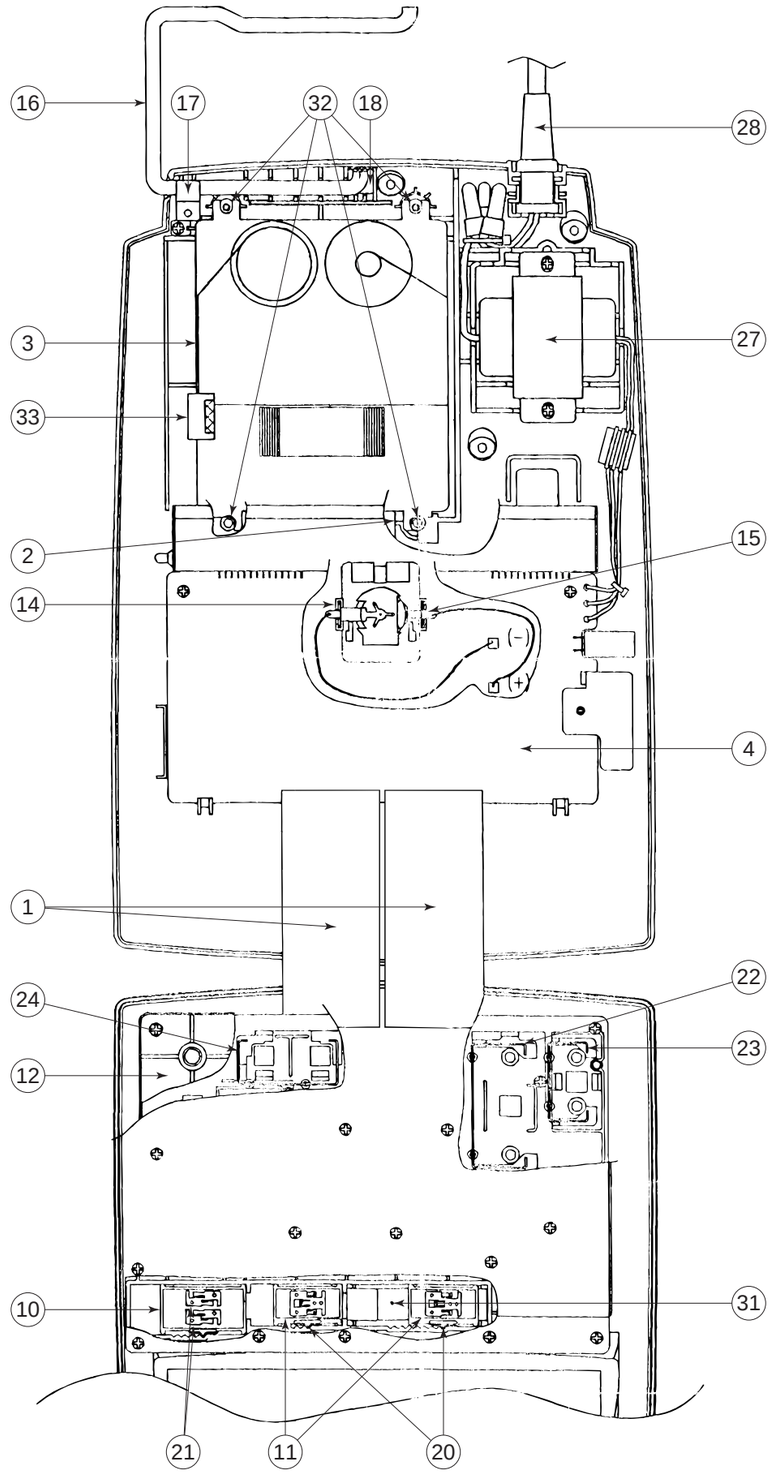
4. EXPLODED VIEW





DETAIL A





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